

Hi-Force HYDRAULIC TOOLS		<u>SJS10-M HYDRAULIC STEPPED JAW SPREADER</u> <u>OPERATING AND SAFETY INSTRUCTIONS</u>		TDS:- 1374
Prepared by:-	Matthew Hughes	Approved by:-	Mark Dalley	Date:05/12/12
REV NO:-	002			
ECO:-	3957			

The Hi-Force SJS10-M hydraulic spreader is a self contained unit, the spreaders are despatched from the factory pre-filled with oil, and are ready for use.

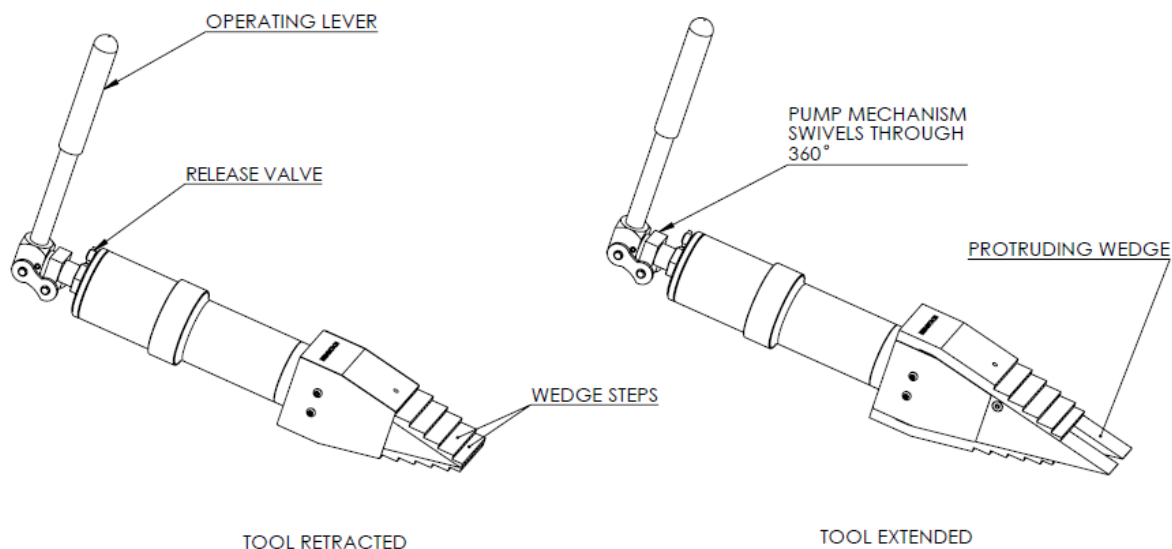
INSPECTION UPON RECEIPT OF GOODS


On initial receipt of goods visually check for transit damage. If found contact the carrier immediately.

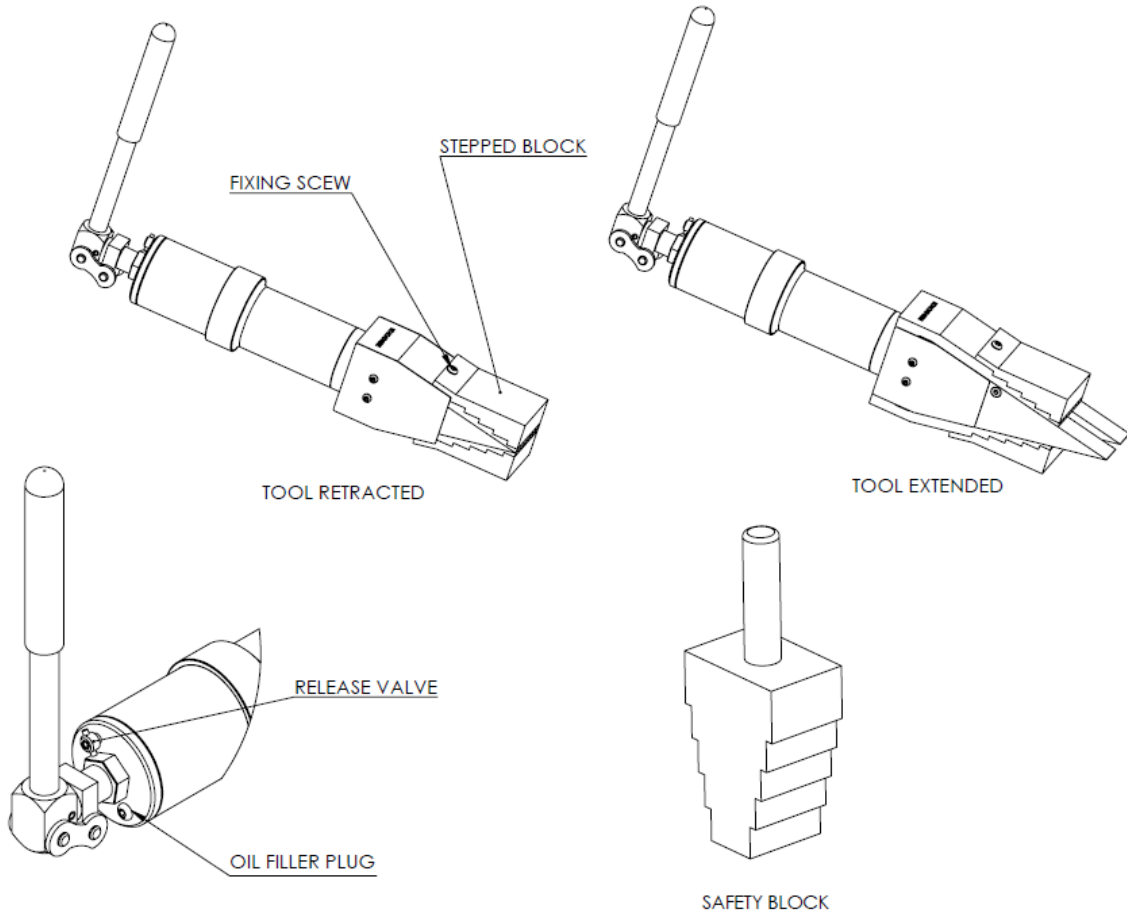
SAFETY

Read these instructions and safety warnings fully. Failure to do so could result in Death, Personal injury or equipment damage.

- Wear suitable personal protection equipment when operating hydraulic equipment. Keep all body parts away from tool and work piece / load.
- Do not work on an assembly held open only by hydraulic means. Always use the safety block provided to keep a joint open.



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OPERATION

The inbuilt pump is used to advance the tool and the tool is retracted with the aid of a spring assisted return function.

- Hi-Force SJS10M wedges can be used in any orientation.
- In instances where the tool is used for separating a pipe flange, for example to replace the gasket, it is often advantageous to use two spreading wedges opposite each other. Please consult your distributor for details.
- Be aware that as the tool expands, the wedge protrudes out of the end of the tool as shown in the diagram. The maximum protrusion of this wedge is 49mm. Ensure there will be no obstruction beyond the tips of the jaws as the tool is operated. This will damage the tool and the equipment being worked upon.

Ensure that the wedge step is inserted as far as possible into the components to be separated. **Do not** hammer the tool into a gap which is too small.

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Using the key on the end of the operating lever, turn release valve screw clockwise to close. Do not use excessive force.

Operate the pump to expand the wedge.

Insert a safety block into the gap and then with the key on the end of the operating lever turn the release valve screw anti-clockwise to open i.e. release hydraulic pressure. So the gap is held open by the safety block whenever it is required to work within the opened space. **Do not** rely on hydraulic means to keep a gap open.

Keep fingers and other body parts clear of closing gaps as the wedge contracts.

When it is necessary to increase the spreading capacity of the tool, one or two stepped blocks can be added as required (one each side as shown in the diagram). Attach the stepped blocks with fixing screws as shown.

Note: in certain circumstances when the hydraulic pressure is released and the tool is under external load, the tool will not retract. A gentle blow on the side of the wedge from a soft mallet is usually enough to free up the tool. If this occurs repeatedly it may be that the wedge is un-lubricated or possibly has been damaged in use.

CARE AND MAINTENANCE

Before each use fully expand the tool and grease the exposed protruding wedge surfaces with molybdenum disulphide grease. This will help to ensure smooth operation and prolong the life of the tool.

Always use genuine Hi-Force hydraulic oil. The use of other fluids may invalidate your warranty.

After use, always fully retract the tool.

Protect tools from the elements when not in use. If storing for prolonged periods, grease exposed metal parts. **Never** store the tool in an expanded condition.


To protect your warranty, have your cylinder serviced and repaired by an authorised Hi-Force repairer. Only use genuine Hi-Force spare parts. Spare parts sheets can be downloaded from our website www.hi-force.com

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TROUBLESHOOTING

Refer to the following table to help identify the most common faults:-

PROBLEM	POSSIBLE CAUSE
Tool will not expand	Pump release valve open Pump oil level too low Pump malfunctioning Pump pressure relief valve set too low Load too great for tool Tool already at full stroke
Tool only advances part way	Pump oil capacity insufficient External obstruction
Tool does not advance smoothly	Air in system
Tool advances but will not hold load	Leaking seals Pump or valve malfunctioning
Tool leaking	Cylinder damage Seal damage
Tool slow to retract/does not retract	Broken retract spring Damaged wedge Valve malfunction

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